

Community Access to the C/NOFS Satellite Data -- Facilitating New Opportunities for Space Weather Research

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The Air Force Communication/Navigation Outage Forecasting System (C/NOFS) satellite was launched on April 17, 2008 into a low latitude orbit (401 by 867 km, 13 deg inclination) and is designed to understand, model, and forecast the presence of ionospheric irregularities that cause scintillations and other radiowave disruptions. Its instruments include those that sample the plasma density and temperature, DC/AC electric fields, DC magnetic fields, ion drift velocity, neutral density, and GPS occultations. A radiowave tomography experiment and a lightning detector are also included on the satellite.

C/NOFS provides a tremendous opportunity to merge space-based and ground-based observations and research, while engendering comparisons with, and data input to, the latest ionospheric models and theoretical calculations and simulations. To help coordinate this research and exchange of data products, the C/NOFS satellite data will be made available to the community through the Coordinated Data Analysis web site (<http://cdaweb.gsfc.nasa.gov/>) that resides at the NASA/Goddard Space Flight Center. The data will be distributed via FTP, OPENDAP (data streaming), HTTP, and web services with output in CDF, ASCII listings, PDF, and PS formats. This activity is sponsored by the NASA/Living With a Star program. This data distribution web site is in addition to the main Air Force Research Laboratory web site for the C/NOFS program that is located at <http://www.kirtland.af.mil/library/factsheets/factsheet.asp?id=12776> and includes links to the C/NOFS instrument web sites, ground-based research, and satellite updates. A description of the C/NOFS satellite instruments and their standard data products available to the community via the CDA web site will be provided.